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THE PROBLEM OF THE SPECTACLE LENS AND ITS SOLUTION IN THE PUNKTAL

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Ophthalmic, or spectacle, lenses have undergone a great change since the days when Nero viewed the chariot races and the gladiatorial events through a gem. The most recent, and, by far, the best lens for all purposes is the Punktal.

A source of worry to many refractionists is in getting a lens which, when before the eye, will give a high degree of satisfaction to the wearer. Marginal distortion causes the greatest trouble to the patient,, but heretofore we have been content in adjusting the spectacle frame and in telling the patients that they will soon learn to disregard this annoying feature. In other words, the brain adjusts itself to the lens, while we should have the lens designed and adjusted to the eye and the brain as well.

The ideal position of a lens, for the correction of visual errors, would be in contact with the cornea. Thereby full correction to the full extent of the visual field would be allowable. But inasmuch as this is impossible and we find it necessary to carry the lenses in some sort of contrivance before the face, scientists and lens manufacturers have gradually developed the science of lens forms from the crude biconvex type to the present-day ultra type.

The history of the development of the Punktal lens goes back 120 years. Wollaston, the inventor of the birefringent prism of the ophthalmometer and the discoverer of ultra-violet light, obtained a British patent in about 1804 on the "periscopic" lens. Wollaston determined the front and back curves necessary to give the widest possible useful field of vision in spherical powers from about —21 to +8 diopters. These lenses gave a widened useful field of view, had an improved marginal correction, were contra-generic in every case although the curves were too deep for practical use.

Quite a controversy arose between Wollaston and several practical opticians concerning this new form of lens. They claimed that, inasmuch as the form of lens had radii of curvatures which bore the ratio of six to one, it was the best form of lens to use for telescopic purposes on account of the minimized spherical aberration, and also that it would be a good form to use for all purposes, including spectacles. After Wollaston had showed them that the eye used only a small portion of the lens surface at any one time and that this portion depended, for its size, upon the size of the pupil of the eye, the spectacle makers stated that the way to reduce aberrations in spectacle lenses was to reduce the size of the lens, or to diaphragm off the marginal portions.

All this took place before the discovery of astigmatism and that a spherical surface has the effect of a spherocylinder for oblique rays of light.

Wollaston had determined the spherical curves of an entire series of lenses free from astigmatism, for a definite inclination of the rays.

In 1899 Ostwalt extended Wollaston's work and showed that there are two possible solutions to the problem of astigmatically corrected spectacle lenses.

Early in the twentieth century the Bausch and Lomb company suggested to the Zeiss Works that a new form of lens could be designed. Mauritz von Rohr, a physicist with the Zeiss Works, undertook the problem and from it the Punktal series was evolved. The lenses were took thick for practical purposes and the jumps between the powers were too great. Bausch and Lomb spent several years computing the entire series with thicknesses applicable to American practices. During the war this work was stopped, but now we have the entire series in

single vision and a newly developed form in the Punktal Ultex. The American Optical Co. has also produced a similar lens.

The early types of lenses, then, were practically ideal, if the central portion only was used. When the excursion of the eyes passes to the periphery of the lens considerable distortion and blur is encountered. The blur referred to here is the effect of haziness or indistinctness of detail, while distortion is the curving of the image as viewed through the periphery of the lens in comparison to that seen through the center. The blur is caused by the oblique incidence of the light on the surfaces. The diagonal path of light through the lens gives different surface powers in the vertical and the horizontal directions for these oblique rays. As a result, the magnification due to the lens differs in different directions; this is known as astigmatism.

The development of the different lens forms brought the field of view from 16 degrees, of the early type, to 52 degrees, in the Meniscus form, while now we have the Punktals with a field of 60 degrees to each side of the center, or a total field of 120 degrees, which approaches the total field of the eye, in the horizontal direction.

The whole idea of Punktal computation is built up on the fact that, to correct the field for astigmatism, the lens must have just the correct shape for its power. Two forms of lenses may be designed to show equally good marginal correction, but in only one of them are the curves such that the lens is applicable to ophthalmic uses.

In our Meniscus and Toric lenses the 6.00 D. curve has been considered as the base, thereby correcting considerable amount of astigmatism of oblique pencils. Still, aberration was noticeable in all but a few of the powers.

By maintaining one curve as a constant it is necessary to change the thickness of the lens to have a change of power. In Punktals the thickness varies but little for the various powers.

Punktals are computed for vertex power, i. e., the dioptral power being the reciprocal of the distance from the vertex of the surface nearest the eye to the principal focus instead of the distance from the principal plane to the principal focus. Thus, by placing the back surface at the anterior focal point of the eye a more suitable correction is given.

The B & L Punktal is of the regular silicate crown, ^{N}D 1.523, mean dispersion $^{N}F - {}^{N}C$ 0.00886, v 59.0, relative dispersions A to D, 0.294, D to F 0.706, and F to G 0.567. The specific gravity of the glass is 2.52. This glass is the very best to be had from the standpoints of transparency, freedom from color, uniformity, hardness, freedom from striae and permanency.

Spherical aberration being a function of the aperture and as, in the case of a spectacle lens, this is governed by the size of the pupil of the eye behind the lens. The spherical aberration, then, is usually very small. Chromatic aberration is slight, as the glass is hard and of low dispersion and high v value. Coma is also a function of the aperture and is relatively slight.

Von Rohr states that the invention of his exactly reproducing lenses relates to spectacle glasses which are intended to compensate the astigmatic defect of an eye by means of a similar but opposite astigmatism. The exactly reproducing lenses referred to here are the Punktals. Punktal being a German coined word used as a trade name for this type of lens. The name comes from the punctiform image formed by the lens.

If we go back to the early types of lenses we find that the centers are fairly well corrected for astigmatism but find that the marginal zones are not. Thus, the condition that has been corrected in Punktals is that deficient optical effect of the marginal zones of the Toric glass and making it as near as possible to the correct effect of its vertex. The significance of the removal of this oblique astigmatism has been shown by photographs, which most of us have seen.

Those back of the improvement of spectacle lenses realized that the spectacle and the moving eye must be considered together, for, in ordinary vision the eye is directed towards the object which has attracted the attention of the observer. Thus, the eye behind the spectacle moves about its center of rotation and its visual line is brought into most varied positions, while the spectacle lens maintains an unaltered position with regard to this center of rotation, as soon as one looks at an

object of finite extent. With the head held steady the eye must turn upon its center of rotation and the peripheral parts of the glass must be used. Thus, the employment is of oblique rays.

In conclusion, we can say that lenses of this character can be favorably compared with the K. A. and Tessar photographic units. The great difference is that the photographic lenses are computed so as to image on a flat surface while the spectacle lens has to be computed so as to image on a curved surface.

BIBLIOGRAPHY

Von Rohr: Eyes and Spectacles.
B. & L.: Scientific and Technical Publications Nos. 5-6.
U. S. Patent Office Monograph No. 989645.

NOTES, CASES AND INSTRUMENTS

TEMPORARY PARTIAL PARALYSIS OF THE ACCOMMODATION

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Patient—Male. Age 36. Occupation, office manager. Case came to me on January 14, 1925, complaining of an inability to read. This condition was first noticed the evening before. His fundus was normal, pupils somewhat dilated with a sluggish reaction; lids, cornea and sclera normal in appearance.

His visual acuity was O.D. or O.S., 20/70. His uncorrected ductions were, adduction 10 prism dioptres and abduction 8 prism dioptres, and his tonicity test revealed 6 degrees of exophoria.

Static skiametry with the help of the ophthalmometer indicated a hyperopic-astigmatic condition which was corrected as follows: O. U. + 1.00 D. Sph. () + 0.25 D. Cyl. axis 90. This correction gave him normal visual acuity at 6 meters; however, with this he was barely able to read Jaeger No. 5 at 40 cm. Upon adding a pair of + 1.50 Sph. to the above he was able to read Jaeger No. 1. With this correction in place he had 12 degrees of exophoria at the near point.

These findings were prescribed in cement bifocals and the patient was instructed to report any improvement or otherwise should it arise.

Two days later patient returned stating his vision had improved the last day and that with his glasses he was compelled to hold his reading about 9 inches away.

On this date, January 17, the adduction had improved, the exophoria measured 3 degrees and a + 0.50 D. Sph. added was indicated for reading at 40 cm. The cement segments were removed and patient was instructed to continue wearing the distance correction and report in a few days. On January 19th a thorough refraction was made, the findings for distance were reduced to + 0.25 D. Sph. () + 0.25 D. Cyl. axis 90. The adduction had increased to 19 prism dioptres with no exophoria for near or distance.

This final correction the patient is now using with comfort. This temporary paralysis of the accommodation was in all probability due to a poisoning of his system which in some way affected the third nerve without apparently affecting his system in general.

THE GULLSTRAND OPHTHALMOSCOPE*

W. V. Freeman, F.I.O.

The large Gullstrand ophthalmoscope provides a means of examining the fundus oculi with one eye as well as stereoscopically in a manner which entirely does away with disturbing reflections. The arrangement for monocular examination furnishes erect images. All fine details of the fundus are seen clearly defined up to the edge of the field, and those even who are not adepts in the use of the ophthalmoscope will experience little difficulty in its use.

When using the instrument for monocular observation five magnifications ranging from 5x to 40x may be obtained by means of interchangeable eyepieces, the field of view with the lowest power being 8 mm. and with the highest approximately 6 mm. Stereoscopic observations with the binocular

telescopic magnifier are made under a 20-fold magnification.

The stereoscopic mode of viewing (in relief) has special advantages. Many afflictions, such as choked disc, may thereby be detected in their earliest stages. Whereas it is almost impossible to recognize any change in the blind spot by the monocular mode of viewing, the binocular arrangement at once discloses with extraordinary clearness any protrusion of the macula.

By means of a simple fixation device it is possible for the observer to get the patient to move the eye in any direction, thereby bringing into view the different parts of the fundus.

A special drawing apparatus can be attached to the instrument if a tracing of the fundus is required to be made, which consists of the drawing prism, the refracting edge of which is made to bisect the exit pupil of the ophthalmoscope, and a drawing block, which is illuminated from the back. The drawing apparatus necessitates in all cases the use of the large fixing device.

The instrument allows for sufficient adjustment to permit examination of hyperopes up to + 18D of error, and myopes up to -30D error. When using the monocular attachment, the fundus can be viewed either with the pupil dilated or undilated; but with the stereoscopic attachment it is necessary to dilate the pupil.

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*Portion of a talk given before the members of the Yorkshire Optical Society, Leeds, England. Reported in and abstracted from The Optician.

ABSTRACT DEPARTMENT

Optometric and ophthalmic journal articles and reprints to be abstracted should be sent to the editor. Only papers on subjects of interest to optometrists will be reviewed in this department.

Collison, J. G. Visual Acuity Tests at the Canadian National Exhibition. The Canadian Optometrist, Vol. VII, No. 2, p. 40. 1925.

Twenty-seven optometrists checked the visual acuity of 1,093 persons at the recent Canadian Exhibition. Of this number, according to Collison, 41% of these persons had 90% or better visual acuity with each eye. 44% of those examined had a visual acuity ranging from 90% to 50%, while 10% of the people had visual acuities ranging from 50% to 15% and the remainder or 5% had visual acuities ranging from 25% to 5%. T. O. B.

Davis, A. E. Serum and Lens-Antigen Treatment for Cataract. Archives of Ophthalmology, Vol. LIV, No. 2, pp. 172-182. 1925.

Davis describes the serum and lens-antigen treatment for cataract, which in certain cases of ordinary cataract, i. e., subcapsular, nuclear, zonular, etc., he recommends. This treatment calls for the usual form of injection of this serum daily or at least three times a week to cover a period of from 50 to 75 injections. The injections to start at ½ cc. and gradually increase to from 8 to 10 cc. The patient's health is closely watched while the treatments are in progress. Davis reports that the treatments thus far have been given to patients having 131 cataract eyes with the following results: 86 eyes or in 65.64% the progress was arrested and vision improved; 36 eyes or in 27.48% the progress was arrested but no visual improvement shown, while in 9 eyes or in 6.87% the cataracts advanced and vision grew worse. C. C. K.

Duke-Elder, W. S. Changes in Refraction in Diabetes Mellitus. The British Journal of Ophthalmology, Vol. IX, No. 4, pp. 167-187. 1925.

Duke-Elder suggests the following law: "That the refractive power of the eye tends to vary directly as the sugar content of the blood." His experiments lead him to believe that as the sugar content decreases, hypermetropia tends to increase, and as the sugar content increases the hypermetropia would decrease or the myopia would increase. He then goes on to cite three cases illustrative of this point. The first is given in full as follows:

Case One, Showing Refraction Varying With Blood-Sugar Content

W. J., male, age 31 years. Previous health very good; led a healthy, active life, including four years' service in France during the war. "For some years" had noticed his urine "muddy"; and in 1914 was turned down in an application for a life insurance policy. The case is, therefore, probably one of a mild symptomless diabetes of long standing, with, recently, an acute exacerbation. Unfortunately there was no record of his previous refraction, but he insisted that his sight has always been perfect—in any case it allowed him to follow his occupation as clerk with perfect ease.

Eight weeks before admission to hospital he noticed he was easily fatigued, and three days before he came under observation he collapsed entirely. On admission he appeared on the verge of coma; he was emaciated, shrunken, and anxious, his breath smelt strongly of acetone and his urine was loaded with sugar.

After the institution of a rigorous diabetic treatment with insulin he improved dramatically. But the treatment would appear to have been too heroic; his blood-sugar temporarily fell below normal, he developed symptoms of hypoglycaemia, and, quite suddenly, on the following day, he complained of dimness and mistiness of vision. On examination he was found to have developed a pronounced hypermetropic astigmatism.

The urine-sugar and acetone bodies were estimated daily, the blood-sugar at somewhat longer intervals, and to co-ordinate the results several sugar tolerance tests were done, proving that the patient was a true diabetic. The refractions were measured every third day, in each case under cycloplegia, and the appropriate lenses always brought his vision easily up to 6/5. During the whole period he was under observation the fundus and vessels remained normal, the media clear, the lens showed no trace of opacity, there was no spasm or paralysis of the external musculature, no esophoria, the visual fields remained unimpaired, and the tension normal.

PERIOD A: 2/3/24 to 12/3/24.

The blood-sugar was rapidly reduced from an unknown height to 0.062 per cent. On 3/3/24 the refraction read:

R.V.: + 5.25D. + cyl. 0.75 ax. 150°.
L.V.: + 4.75D. + cyl. 0.75 ax. 30°.

Carbohydrates in the diet were increased and the insulin dosage lessened, and by 12/3/24 he was excreting 34.75 gms. of glucose per diem. During this period of sugar increase the refraction changed, as figured, to:

R.V.: + 2.0D. + cyl. 0.75 ax. 150°.
L.V.: + 3.0D. + cyl. 0.25 ax. 30°.

PERIOD B: 13/3/24 to 24/3/24.

The sugar again was rapidly reduced by insulin and starvation to an excretive value of 2.62 gms. per diem. After this second fall a second "hypermetropic crisis" occurred. On 14/3/24 the refraction gave:

R.V.: + 3.25D. + cyl. 0.5 ax. 120°.
L.V.: + 3.25D. + cyl. 0.75 ax. 60°.

The blood-sugar was thereafter allowed to increase, latterly by largely adding to the carbohydrate intake and withholding insulin, until it reached 0.293 per cent with a urine excretion of 169.05 gms. per diem, during which time a decrease in hypermetropia occurred. Refraction on 24/3/24 gave:

R.V.: + 1.25D. + cyl. 0.25 ax. 120°.
L.V.: + 1.25D. + cyl. 0.25 ax. 60°.

PERIOD C: 25/3/24 to 25/4/24.

A further reduction of sugar to 0.066 per cent in the blood, and 1.55 gms. daily in the urine, caused hypermetropia again to appear: on 31/3/24.:

R.V.: + 2.0D. + cyl. 1.25 ax. 105°.
L.V.: + 2.5D. + cyl. 0.5 ax. 75°.

Thereafter his blood-sugar was kept approximately normal, i. e., at slightly less than 1 per cent, and the refraction fell as charted until it reached a value of:

R.V.: + 1.5D. + cyl. 0.25 ax. 105°.
L.V.: + 1.5D. + cyl. 0.25 ax. 75°,

at which value it appeared to stabilize. By 24/4/24 his metabolic condition appeared to have become stable on a fairly liberal diet aided by 30 units of insulin daily, his eyes appeared to have reached what was presumably their normal, and he himself felt, and looked fit and well. He was therefore discharged provided with instructions as to diet and insulin dosage.

PERIOD D: 9/5/24 to 19/5/24.

Fourteen days later he returned and proceeded to go through a fourth sugar-variation phase, on this occasion pathological, when before it had been experimental. A badly sterilized insulin syringe at home had given him a cellulitis of the left arm. This was

treated, but by 14/5/24 the blood-sugar had risen to 0.292 per cent and he was excreting 55.61 grms. in the urine per 24 hours. Meantime his refraction, which, when he came into hospital on the 9/5/24 was still at the previous (normal) value, tended towards myopia, and now read:

R.V.: + 1.0D. + cyl. 0.25 ax. 105°.
L.V.: + 0.75D. + cyl. 0.5 ax. 75°.
PERIOD E: 19/5/24 to 9/7/24.

The sugar remained high until 19/5/24, and the (comparative) myopia persisted. The arm then cleared up, the sugar fell to normal rapidly, and on the 24/5/24, when the blood-sugar value was 0.095 per cent, refraction showed a hypermetropia.

R.V.: + 2.25D. + cyl. 0.25 ax. 105°.
L.V.: + 2.0D. + cyl. 0.5 ax. 75°.

Thereafter he progressed steadily, and one week later was again discharged with a normal and stable blood-sugar, and a refraction once more reading:

R.V.: + 1.5D. + cyl. 0.25 ax. 105°.
L.V.: + 1.5D. + cyl. 0.25 ax. 75°.

This persisted until July 19.

His second case deals with the sudden onset of hypermetropia accompanied with a corresponding decrease of sugar content and the third showed a case of apparent myopia with increased sugar content.

Duke-Elder has graphed these cases and draws the following conclusions:

1. In diabetes sudden changes of refraction occur. In the course of the disease with high or increasing sugar, myopia tends to occur; with decreasing sugar, and, therefore, usually just after the onset of energetic treatment, hypermetropia tends to occur.

2. The phenomenon is due to osmotic processes involving the lens, caused by a variation of the molecular concentration of the blood and tissue-fluids with the sugar content.

3. In both cases the tendency is to return to normal: in the first, under general diabetic treatment; in the second, on the establishment of metabolic stability. Provided the diabetic element can be successfully dealt with, invariably a good prognosis can be given. The patient can be assured that his eyes will return to normal within a few weeks and that his vision will be unimpaired.

4. In consequence of the general use of insulin, it is anticipated that the rarer condition of hypermetropia will become more common. C. C. K.

Friedenwald, J. S. Opthalmoscopy with Yellow-Green Light. American Journal of Ophthalmology, Series 3, Vol. 8, No. 3, pp. 177-179 (Pl.). 1925.

Friedenwald advises the use in ophthalmoscopy of a light of limited spectral range and of a yellow-green color. This he claims an improvement over white light of the red-free, inasmuch as the retinal capillaries can in most cases be readily seen. In viewing the fundus in this manner it appears as a whole, a light grass green in color with the macular area somewhat more yellowish. The arteries and veins are of course black. C. C. K.

Hardy, W. E. Checking the Completed Glasses Before Their Delivery. The Optician (British), Vol. LXVIII, No. 1765, pp. 398-399. 1925.

Hardy points out that refractionists are apt to be very exacting in every detail of an ocular examination and then be rather lax in the matter of assuring themselves that the material about to be placed before the patient's eyes is as it should be. He suggests that every pair of glasses be "checked over" before it be delivered to the patient. The following points should be noted: (1) The quality of material used, both lenses and frames. (2) That material is free from defects. (3) That the inter-pupillary distance checks with the lens centers. (4) The height of bridge. (5) Depth of bridge. (6) Angle of crest. (7) Temple length. (8) Angle of inclination. T. O. B.

Howard, A. B. Optometry, Over a Span of Thirty Years. Optical Journal and Review, Vol. LV, No. 13, pp. 26-30. 1925.

Howard in discussing the word optometry explains that in general it came from the two Greek words meaning the eye and its measurement. He further explains how this was brought about and by whom. He gives credit to C. M. Culver, M.D., an ophthalmologist of Albany, N. Y., for the original use of the word. It seems that Culver made an original translation of Landolt's **Refraction and Accommodation of the Eye** from the French, and in his text, to describe refraction, he used the

term "optometrie." This was in the year 1877. C. C. K.

Lawson, Sir Arnold. Lens Tints and Their Values. The British Journal of Ophthalmology, Vol. IX, No. 3, pp. 97-109 (Pl.). 1925.

Lawson strongly condemns the practice of prescribing tinted lenses for the normal eye when used in an ordinary way. His laboratory experiments lead him to believe that both the cornea and the crystalline lens furnish all the needed protection against the ultra-violet rays, and the four factors to be taken into consideration are not the presence or absence of these rays, but (1) the intensity of the light, (2) the duration of the exposure, (3) the presence of glare, (4) occupation or trade.

With regard to the first, extreme degrees of sunlight, especially in the rarified atmosphere of mountains, are abnormally charged with ultra-violet and infra-red radiations, and this implies an increased dosage. The chief danger from the eye experiencing intense sunlight seemed to be from the red and not from the violet end of the spectrum.

Concerning the duration of the exposure, under certain conditions of health, prolonged exposure to even moderate degrees of light may be harmful, due to a lowering of the natural resistance.

As to glare, Lawson claims this may complicate the problem. Usually glare proceeds from snow, desert sand, rock, water, or chalk. The light, in glare, strikes the eye in an unaccustomed manner, i. e., snow reflecting about 70% of the existing sunlight up to the eye. The effects of glare were exerted more in the luminous and infra-red regions of the spectrum than in the ultra-violet; hence Lawson finds it reasonable to consider snow-blindness as due not so much to excess of ultra-violet radiation as to excess of exposure to the luminous and infra-red radiations, and he thinks the conjunctivitis accompanying snow-blindness was probably due to sunburn of the conjunctiva.

Dealing with the effects of occupation, he said that such trades as acetylene welding exposed the worker to intense ultra-violet radiation; and, on the other hand, glass-blowers and workers in foundries were subjected to excessive heat-radiation.

Lawson further points out that the thickness of the tinted lens used was an important factor which should never be lost sight of, when such lenses were prescribed, and suggests a standard thickness of 2 mm. that should be adopted for all tinted lenses to enable the refractionist to get the exact absorption desired. C. C. K.

Levy, A. H. Jews and Eyesight. The Optician (British), Vol. LXIX, No. 1771, pp. 48-49. 1925.

Levy in discussing ocular conditions among Jews claims that cataract was more common among Jews than non-Jews, although its origin was probably not racial. Glaucoma was also much more prevalent. Other ocular defects common among Jews were various forms of degeneration of the retina, resulting in night-blindness and myopia. T. O. B.

Llewellyn, T. L., Haldane, J. S., and Pooley, G. H. Etiology of Miner's Nystagmus. The Optician (British), Vol. LXIX, No. 1771, pp. 47-48. 1925.

At a meeting of the Section of Ophtholmology of the Royal Society of Medicine it was generally agreed that miner's nystagmus was due to improper illumination.

Dr. T. L. Llewellyn said that miner's nystagmus was an occupational disease of the general nervous system, not merely a local disease confined to the ocular muscles. Deficient illumination of the coal-mine owing to the low candle-power of the lamps used and to the absorption of light by the coal was the chief factor in the production of the disease.

Professor J. S. Haldane thought that it might now be regarded as clearly established that miner's nystagmus was brought about by using the eyes for guidance in muscular movements when the absolute (not relative) differences in luminosity of the objects seen were extremely low.

Mr. G. H. Pooley said he had been carrying out some experiments to discover what the normal eye could see at an illumination of 0.00006 c.p. At that very dim illumination the normal eye could still detect color; there was a visual acuity of about 1/72 of the normal. A good deal of flicker was experienced, fatigue was very marked,

and a moving object was more readily seen than a stationary one. The color best seen was red, green was detected less readily, and blue and yellow less readily still. The eye was so readily fatigued in the dim light and retained fixation so badly that there was no doubt a tendency, even in the case of the healthy eye, to oscillate under such conditions. He laid stress upon the point that a man was able to work in spite of a very marked degree of oscillation. Men whose eyes were never still, and who had a definite undulatory oscillation of their eyes, could still not only go on getting coal regularly and steadily, but in many cases could play cricket in quite good teams. With extremely little sight men could earn full wages at the coal face.

T. O. B.

McFadden, F. Additional Technic and Procedure Required for Optometry to Give Best Service in Ocular Examination of Motorists. The Optical Journal and Review, Vol. LV, No. 8, pp. 29-31. 1925.

McFadden finds present day refractionists in no position to demand visual tests for motorists. He claims that we as refractionists are today lacking in refractive technic which would enable us to examine motorists who may be unwilling to expose any existing visual defects inasmuch as a special form of examination will be necessary to handle this class accurately. Furthermore we must come to some sort of an agreement as to the standards of visual acuity which the applicant must come up to, and also a simple form of field testing, pacticularly one less dependent upon the patient, must be devised. He further finds our present system of recording color vision inaccurate and makes the splendid suggestion that small sets of signal semaphores be made, illuminated from within, and operated on a rheostat control. Such apparatus would more nearly conform to conditions as the motorist finds them and color testing would therefore become accurate for this type of work. He also goes into the field of psychological tests and explains further how we as refractionists could be of value in making this portion of the motorists' examination both scientific and practical, suggesting placing the applicant in a chair arranged similar to the control seat of a motor car and having him execute tests both visual and otherwise, his response being automatically graphed as he handles the controls, thus making permanent records.

T. O. B.

Olsho, S. L. A Test Chart Screen and a Familiar Test Chart with Letters Reoriented. American Journal of Ophthalmology, Series 3, Vol. 8, No. 3 (Ill.), pp. 192-195. 1925.

Olsho shows and describes a test cabinet fitted in a frame carrying black horizontal and vertical shutters which can be arranged to cover any desired portion of the chart, leaving exposed only such test letters as it is desired to use. The test letters are the usual block Snellen test type arranged in vertical and horizontal rows.

T. O. B.

Reichert, W. The Correction of Atypic Myopia (Abst.). Optical Journal and Review, Vol. LV, No. 12, pp. 25-26. 1925.

Reichert, writing in German in Central-Zeitung fur Optik and Mechanic advises that in cases of apparent low myopic error one should be careful that it is not an accommodative cramp. One should be particularly suspicious in cases of low degrees of myopia in adults; in cases where the amount of myopia changes during the same examination; in cases of adults where the myopia now seems present in a formerly normal eye; and in cases complaining of headaches and intra-ocular pains when the full correction is in place.

T. O. B.

Ryer, E. LeRoy. Refractor's Value in Cases Where Diameter of Pupil Is a Factor. Optical Journal and Review, Vol. LX, No. 6, p. 34. 1925.

Ryer's experimental work leads him to believe that it is more difficult to secure normal vision in persons having large pupils than in those with a reasonably small pupil, and he also advises an over-correction of hyperopes and an under-correction of myopes in orthophoric cases with small pupils. This is done because the smaller pupil acts in the manner of a pin-hole disc, giving the patient a keener vision than he would have were the pupil larger. The refractor assists in checking these cases.

T. O. B.

Swain, W. Orthoscopic Spectacles. The Optician (British), Vol. LXIX, No. 1773, p. 79. 1925.

According to Swain these were first suggested by H. Scheffler in the year 1866, and were intended to neutralise both accommodation and convergence at near work. They were a development of an English idea of making one single large lens overlapping both eyes, each eye looking through either side of the center. If there be emmetropia and normal muscle balance at distance, accommodation and convergence are both static; and one would, therefore, anticipate comfortable vision at distance. Suppose now a person looks through a large diameter three diopter lens at an object 33 cms in front. The latter occupies the focal plane of the lens and rays will emerge parallel. No accommodation will be required. But we may also observe that the pencils will also emerge parallel to one another so that no convergence will be required. Thus both accommodation and convergence would be zero for work placed at reading distances. For other object distances, the power of this large lens would simply be the dioptral expression of the working distance.

But this would only hold for emmetropia and excluding any question of the tendency of the sense of nearness complicating the issue, the lens fails in conditions of ametropia. Scheffler, therefore, proposed to work separate lenses, each with sufficient base in prismatic effect to equalize accommodation and convergence. They were not a success, partly on account of their weight, distortion due to the prismatic deviation, and to the fact that muscular imbalances were not allowed for; and possibly also from the sense of nearness tending to give rise to accommodation.

The idea has a further development of a more successful kind in the stereoscope, and in the binocular loupes figuring in the catalogues of various wholesale houses. T. O. B.

Thomson, E. The Lateral Ocular Muscle Balance in School Children. The British Journal of Ophthalmology, Vol. IX, No. 3, pp. 109-114. 1925.

The lateral muscles of 486 children were examined by Thomson. This group was divided into two portions, the first, a group or 196 students who had and were using ocular corrections and the second a group of uncorrected students, some with various visual defects, 290 in number. Upon making the tonicity test for exophoria and esophoria at six meters Thomson found that the percentage of imbalance was the same in each group, esophoria being present in some degree in 75% of the cases, exophoria in 21% and orthophoria in only 4%.

C. C. K.

BOOK NOTICES

New Books for review should be sent to Dr. E. O. Fjelstad, Red Wing, Minnesota. Only Books of such nature as to be of interest to optometrists will be used in this department. Optometric and Ophthalmic publications that have been issued in the past and which are still procurable through their publishers will also be reviewed, from time to time, as space permits.

A DICTIONARY OF APPLIED PHYSICS. Edited by **Sir Richard Glazebrook, K.C.B., D.Sc., F.R.S.** In 5 volumes. Vol. 4, "Light, Sound, Radiology." Large octavo. London: MacMillan & Co., Ltd., 1923.

As the name implies this set is a dictionary of applied physics, although one would think that encyclopedia would be more fitting. Volume 4 is the only volume which we, as students of light, are interested in. Everything from A to Z is taken into consideration, that is, if it concerns light. Considerable space is given to the theories of light propagation, ophthalmic glass and optical instruments, all of which are merely the elements of the subject. It is doubtful if the publishers permit the set to be broken, but, if one wishes to have a ready reference of all phases of applied physics, the set makes a valuable asset in any library.

E. O. F.

SPECIAL REPORT

OPTOMETRIC CLINICS, PART III

Being a Digest of the optometric and ophthalmic literature on this subject for the year 1924, as taken from the lists of papers on Industrial Eye Work, in the CURRENT LITERATURE department appearing monthly in the Northwest Journal of Optometry. This is the third and final portion of the second digest. Part one reviewed the 1924 literature on Permanent Refractive Clinics and Part two reviewed the literature on the Post-Graduate Clinic, while the first digest reviewed the Visual Work in Schools. The third digest will appear in the June issue, it being a review of the 1924 literature on Refractive Work in Industrial Organizations, by

C. C. Koch, Opt. D., F.A.A.O.
Minneapolis, Minnesota

VISUAL CLINICS FOR MOTORISTS

ESTABLISHMENT

Davis recommends the recording of data regarding the motorists' visual acuity by the state. His suggestions are based on a survey of motorists' vision made in the state of Rhode Island, where the optometrists and the ophthalmologists co-operated, forming a joint committee to see just what part defective vision played in swelling the number of automobile accidents from year to year. This joint committee presented the following report to the Rhode Island State Board of Public Roads:

1. That the State Board of Public Roads keep on file the distant visual acuity of each eye of applicants for driving licenses, records being made without glasses and also with glasses if they wear them. This will be important in checking up those who have accidents and will be of great assistance if a change of the law is found necessary at some later date.

2. The standards recommended are considered safe if due caution is exercised on the part of those who manage to just pass.

3. We recommend that all whose vision is 20/40 or less in either or both eyes be informed of their condition. (Most people who have defective sight and have never had their eyes tested do not know it.) While they would readily pass these minimum requirements, the added advantage of normal sight might save them from serious accident.

4. That a record be kept of the visual conditions of all parties who have auto accidents.

5. That those who find it necessary to wear glasses in order to pass the examination be granted a license to drive only when wearing the same and that such license be made out upon a different colored card and indicated across the face in writing upon the same so that anyone would know at once that such a provision was in force in the issuing of said license. The possessor of such a license to be informed that if he should operate a machine without the necessary glass correction his license would be revoked and he would be held criminally negligent for any accident caused by operating a machine upon the public highways. That re-examinations be made of all applicants as often as the board shall decide and those who showed poor tests be called for re-examination at frequent intervals, and that all drivers must have their vision checked at least once in five years.

6. Field of Vision. A—In addition to seeing an object clearly, the width of one's field of vision is important, especially those driving in congested traffic or when a child darts into the street. The person with a perfect field of vision in both eyes, when looking straight away can see objects within ninety-five degrees to the right or ninety-five degrees to the left, making a total radius of vision of 190 degrees for his or her normal field.

B—One who is blind in one eye and in the other has normal field will see ninety-five degrees one way and about sixty degrees the other, making a total of 155 degrees for his normal field. One-eyed people usually equalize their field by turning their head slightly to one side. This gives them 77.5 degrees both right and left.

C—The field of view through complete windshields varies from twenty-three to thirty-eight degrees to the left and forty-eight to sixty degrees to the right, making a maximum total of 98 degrees.

D—Blind areas are caused by the supports of windshields at the left of about ten degrees, and at the right, seven degrees. Thus, it will be seen that again, if all drivers are operating within the law as to speed, signaling and slowing down at corners, one with a restricted field much less than normal can operate with a fair degree of safety.

7. We recommend that the State Board of Public Roads should have full power to restrict parties from driving whose field of vision is found to be less than 140 degrees even though their visual acuity be normal.

8. We recommend that a continued educational program be arranged if possible, to educate those who must walk on the highway at night to wear some light colored garment, carry a lantern or some light-colored object such as a handkerchief, opened, so that it will reflect light. Many lives are unnecessarily sacrificed by pedestrians placing too much confidence in the auto drivers being able to see them. This can only be reduced by the co-operation of those who walk on our highways.

9. We recommend that if the standards suggested are accepted, the letters of street or warning signs should be large enough to be read by those who have 20/70 vision at a specified distance. The following size of letters is recommended: twenty feet, 1¼ inches; forty feet, 2½ inches; sixty feet, 3¾ inches; eighty feet, 5 inches; 100 feet, 6¼ inches. The width of each arm or portion of a letter to be 1/5 of its height.

Wilkins advocates the formation by the various optometric societies of Refractive Clinics for Motorists, these clinics to be held in conjunction with expositions, state fairs, motor shows, etc., etc. **Schriftgiesser,** on the other hand, suggests that this examining work be supervised by the various State Boards of Optometry and points out the effective work done by Dr. Howard C. Doane and his associates of Boston. These men established a motorists' visual clinic, getting the governor and other noted state officials to co-operate. The clinic was, of course, conducted without cost to the applicant. **Kaufman** informs us that the Cincinnati Association of Optometrists, co-operating with the Cincinnati Traffic Court, has established a motorists' clinic where all traffic offenders must come and pass certain visual tests. This has been accomplished largely through the efforts of Judge Yeatman, who recognized the need for this type of public protection.

METHOD OF SECURING APPLICANTS

As has already been said, **Davis** advocates the passage of legislation making these motorists' visual tests compulsory. **Wilkins** suggests that when this is not possible, the work can still be carried on in a very satisfactory manner by establishing temporary clinics in places where people gather in great numbers and appealing to them to have their vision checked. In much the same manner does **Schriftgiesser** outline the plan as followed in Boston, only here the clinics become permanent, operating certain evenings each week. In **Kaufman's** Traffic Court Clinic, of course, all motorists must come to the clinician and have their acuity of vision attested.

TECHNIC OF REFRACTION

A monocular and binocular record of visual acuity, a chart of the external limits of the form field of perception and a color test for red, green, yellow and blue comprises the routine of motor drivers' visual acuity tests.

DISPOSITION OF APPLICANTS

Wilkins, in describing a motorists' visual clinic recently held in Ontario, says: "Each applicant for testing was handed a small certificate, after examination, bearing the following data: percentage of visual acuity for right eye, left eye, combined vision, color perception, and field of vision.

"The cerificates were padded, printed in duplicate and numbered. A space was reserved for any recommendation on the part of the examining optometrist, if the visual acuity or other defect of the examinee suggested the need, and a very considerable use of this part was made."

Schriftgiesser makes a similar recommendation.

RESULTS OF VISUAL CLINICS FOR MOTORISTS

Dayton finds that from 10 to 15% of all motorists have visual defects of such character as to materially interfere with their driving, and **Petry,**

through the Rochester Optometric Society, though opposing these clinics, admits that at least 10% of all motorists would fail to pass a 50% visual acuity test. **Wilkins** divides 1,093 individuals examined at a recent clinic into six sections as follows: In the first group have been placed all with 90% or better vision for each eye and O.U. It is very significant that only 441 of the total were able to be placed in this No. 1 group—practically 40.3% only could be considered as having reached a normal standard .

Into group 2 are placed those having less than 90% of visual acuity O.U. and better than 50% in either eye monocularly. There were 478 in this class, being 43.7%. It will be readily conceded that a large majority of these would benefit by correction at our hands, and very generally a notation to this effect was made by the optometrist in charge.

Group 3 numbers 113, or 10.3%, and was reserved for those having a visual acuity of less than 50% in either eye and more than 25% O.U.—obviously good subjects for improvement by optometry, and, in their present condition, questionable as safe drivers.

The groups get smaller and smaller. No. 4 holds only 32, or 3% of the whole, and into it are grouped the worst of the refractive cases, those with less than 25% visual acuity in one or the other eye.

Failure to recognize a red lamp in the color test accounted for 16, or 1.5% of the whole. A number of others were unable to satisfactorily call other primary colors, but it was thought advisable to enter in this class, No. 5, only those obviously unsafe as to the red signal.

The concluding section, No. 6, holds 13, or 1.2%, being those having markedly restricted vision as to field, or with only monocular vision due to eneucleation of the other eye, or a percentage of vision lower than can be satisfactorily measured.

BIBLIOGRAPHY

Davis, A. W. Visual Standards for Auto Drivers (Ill.). Optical Age, Vol. XX, No. 10, pp. 19-23. 1924.

Dayton, F. B. The Relation of Visual Defects to Auto Accidents. Optical Journal and Review, Vol. LIII, No. 17, p. 47. 1924.

Kaufman, C. Test Chart Installed in Traffic Court. Optical Journal and Review. Vol. LIV, No. 17, p. 48. 1924.

Petry E. Rochester Society Holds That Motorists, Not Optometrists, Should Seek Legislation Requiring Visual Tests of Drivers. Optical Journal and Review, Vol. LIV, No. 17, p. 47. 1924.

Schriftgiesser, K. Motorists' Eyes. The Connecticut Optometrist, Vol. 1, No. 3, pp. 8-10. 1924.

Wilkins, W. H. Report on Motorists' Vision Tests. The Canadian Optometrist, Vol. VI, No. 9, pp. 263-264. 1924.

In Memoriam

ANDREW JAY CROSS

1855-1925

In the Death of Dr. Andrew Jay Cross, optometry suffers the loss of another of its great leaders.

For years he has served the profession well in various activities—As an Organizer of our National Optometric Society—As an Author of an Optometric Text—As a Teacher of Optometric Technic—As an Inventor of an Ophthalmic Lens—and in many other ways, he has always served.

We are indeed sad to record the passing of this great leader who died at his home at White Plains, New York, on April 16th.

Dr. Cross was ever striving to raise optometry to the professional plane he believed it belonged, and his work has done much to place the profession in its present position.

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Original papers, scientific communications and correspondence should be addressed to Editor. Books for review should be sent to Dr. E. O. Fjelstad, Red Wing, Minnesota. Reports of society proceedings in Minnesota should be sent to Dr. A. R. Burquist, in North Dakota to Dr. A. S. Anderson, and in Nebraska to Dr. A. M. Skeffington. Special Reports should be sent to Dr. A. H. Nordland. News items should be sent to Dr. H. B. Kollofski.

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Copy of advertisements must be sent to the Business Manager by the tenth of the month preceding its appearance. Subscriptions, applications for single copies, communications with reference to advertising or other business, should be addressed to the Business Manager.

JACK I. KURTZ, Room 209, Yeates Building, Minneapolis, Minnesota.

The Journal has no objection to the reprinting by other magazines of any of its articles, providing such reprints are properly credited to the Northwest Journal of Optometry

A TREATISE ON SKIAMETRY NEEDED

Quite recently the writer, a recent graduate of an optometric college, wishing to clear up a vague point on skiametry, and not finding what he wanted in texts of recent writing, had to borrow books written by Sheard and Cross, as they have been out of print for some time. Why two classics on such an important phase of our work should be out of print and unobtainable is difficult of comprehension. In fairness to the student optometrists and especially those entering the profession since the editing of Sheard's and Cross' texts on skiametry, it would be well that someone, preferably Sheard and Cross, edit and bring up to date a text on this all-important subject. Skiametry is more in universal use today than a few years ago and one finds the journals full of theories, ideas and what not on the subject, but they lack the fineness of the master. Therefore the writer reiterates his previous statement—let someone, accomp'ished of course, bring up to date a complete treatise on skiametry, static as well as dynamic.

E. O. F.

NATIONAL CONVENTIONS

The announcement has been made that the next National Convention of the American Optometric Association will be held at Louisville in June of this year. To those optometrists who have attended these annual gatherings of our profession from all parts of the country we need not emphasize the benefits derived from such attendance. This short editorial is directed to those who have not as yet availed themselves of the opportunity of attending a national congress of the A. O. A.

Occasionally the question will be asked, "Why have these conventions? Everything is going along all right with our local society, so why spend the money and take the time to attend a National Convention?"

Let us answer this question by asking another: Why belong to an optometric society at all?

You belong to your state or local society because you like to rub shoulders and exchange ideas with your fellow practitioners—you belong to an optometric organization because you really have a desire to work in unity for the betterment of optometric conditions in your own state.

We know of nothing that will broaden a man more than spending a few days at an A. O. A. National Convention. Here you will find the same good fellowship and unselfish desire for betterment that you find in your local society, only on a much larger scale. Optometrists from the Eastern Seaboard find out what the doctors on the Pacific Coast are thinking about; the practitioners below the Mason-Dixon Line swap yarns and ideas with their fellow optometrists from the Northern States. And again, the clinics and entertainment features will amply repay one, for they will send you back to your office with renewed enthusiasm for your work.

From the State Association standpoint there is much to be said in favor of sending the largest possible delegation to the National Convention. These delegates bring back to their societies new ideas and a broader vision. They are taught new ways of building optometric prestige and usefulness. They finally come to the realization that the A. O. A. is neither a myth nor a coldly efficient professional organization. They find that, after all, it is simply THEIR National Society.

Our readers are urged to plan their vacations in June and, with their families, attend this great gathering of optometrists from all parts of the country.

C. C. K.

REPORTS AND ANNOUNCEMENTS OF SOCIETIES

POST GRADUATE CLINIC AT ALLIANCE, NEBRASKA

Alliance, Nebr., April 18.—The Northwestern Nebraska Post Graduate Clinic held at this city April 14th and 15th, opened Tuesday morning in the Chamber of Commerce rooms at the city hall. The activities of the morning were mainly registration and arrangements to attend clinics.

The meeting opened at 1:00 P. M. with an address and lecture by Dr. A. M. Skeffington, national clinician of the American Optometric Association. The clinician outlined "Skeffington's System of Optometry," stressing the necessity of following a definite procedure, the main points of which he outlined as follows: Pupillometer, Opthalmoscope, Transillumination, Phorias, Opthalmometry, Retinoscopy, Static and Dynamic, Ductions and Reversion, Accommodative Convergence, Ductions at near, Amplitude of Acc Qualatative Amp. of Acc., Subjective Dynamic Cross Cylinder, Dominant Eye, Summary. Throughout his lectures, which were given in conjunction with the clinical work, the clinician dwelt at length on each of the above sixteen points of procedure. After the clinician's first lecture Dr. Smith, of Kimball, said: "I cannot stay for the clinic tomorrow, but I've had my money's worth right now."

At 5:30 P. M. the clinic adjourned to meet at the Palm Room of the Alliance Hotel, where a banquet had been arranged for by the Lions Club and the Rotarians in a joint meeting to entertain the visiting Optometrists.

Wednesday morning Dr. Skeffington spoke at the High School auditorium, where he stressed the necessity of visual conservation.

The Clinic reopened at 10:00 A. M. and again at 1:00 P. M., continuing through until 5:30 P. M.

A complete Genopthalmic refracting room equipment was sent out by Riggs Optical Company in charge of their representative, Mr. Mullman.

The American Optical Company was represented by Mr. Lustig, of Denver, who distributed free tickets for the banquet to the visiting guests.

The Clinic was a decided success from every angle. Every Optometrist who attended felt that he had been more than repaid by the practical refraction knowledge gained. They all agreed further that there has been no better method yet thought of to sell Optometry to the public, to make the public know that Optometry is the only science dedicated to the preservation of visual efficiency. In accomplishing this purpose Dr. Skeffington is a past master. His talk to the Lions and Rotarians was such a tremendous success that the local Optometrists feel that Optometry in Box Butte County was thereby lifted to a higher plane, which could not have been obtained in any other way. This address alone, together with the wholesome publicity derived therefrom, was worth the entire cost of the clinic. As

a result of this first clinic held in the panhandle of Nebraska, the Northwestern Nebraska Academy of Optometry was organized. The purpose of this organization will be wholly educational among its members. Meetings will be held twice each year. The next meeting will be held in Scottsbluff in October. The following names were listed as charter members:

Drs. A. M. Skeffington, Kearney; C. E. Masters, Crawford; C. E. Drake, Alliance; M. E. Drake, Alliance; E. L. Montgomery, Chappell; C. H. Schwaner, Scottsbluff; G. B. Berkely, Scottsbluff; R. E. Smith, Kimball; W. H. Wiker, Sidney; B. G. Bauman, Alliance.

SOUTHERN MINNESOTA ASSOCIATION

The Southern Minnesota Association of Optometrists will hold their next meeting at the Saulpaugh Hotel, Mankato, Minn., Tuesday evening, May 5th, at 6:00 o'clock.

There will be a 6:00 o'clock banquet after which election of officers will take place.

A good program is assured by the program committee. Dr. E. H. Kiekenapp, national secretary, just back from his eastern trip, will have some interesting things to tell us about the Southeastern Congress, which he attended, and the activities of the A. O. A.

There will also be a clinic and discussion after the banquet on some optical instrument. We are endeavoring to make this meeting an educational one, and it will be well worth while for all Southern Minnesota Optometrists to make arrangements now to be in attendance at this meeting.

Dr. H. C. Prey, president of the Association, is chairman of the local committee, and we ask all who contemplate attending to kindly write Dr. Prey, of Mankato, so that he can make the necessary reservations.

Walter H. Nordin, Secy.

NORTH DAKOTA EXAMINATIONS

Dr. L. J. Anderson of Grand Forks, secretary, announces that there will be a meeting of the North Dakota State Board of Examiners in Optometry held in Fargo, N. D., May 19 and 20 at the Waldorf hotel. At this meeting several business matters will be taken up as well as the examination of candidates. Candidates should have their applications in the hands of the secretary not later than May 9th.

NEBRASKA CONVENTION

Dr. R. E. Garland, Secretary of the Nebraska Association of Optometrists, announces the dates for the coming convention of this society. The convention will be held at the Fontenelle Hotel, at Omaha, Nebraska, on May 6th and 7th. All Nebraska optometrists are urged to attend as many important business matters are to come up and the program for the coming year is to be laid out. Both Secretary Garland and President Perrigo are anxious to have all the members of the Nebraska Association out at this time, so make your plans to meet at Omaha on the 6th and 7th of May.

THE SOUTHEASTERN CONGRESS

A splendid meeting was held in Columbus, Georgia, March 31st to May 2nd. 150 optometrists gathered to witness a sham-battle at Fort Benning which was conducted with true military tactics. This occupied the first day. The second and third days were given over to educational matters. Drs. Skeffington, Woll, Petry, Dean, Kiekenapp, Brown and Barr conducted clinics and gave lectures. Dr. M. B. Clason was in charge and the congress proved a splendid success.

The following is a resolution passed at this meeting:

Whereas, the corporate existence of the American Optometric Association was collaterally attacked in the courts of Ohio during the past eight months, and

Whereas, the American Optometric Association in convention assembled at Kansas City, instructed the officers and trustees of this Association to protect and preserve the rights and privileges of the A. O. A. as incorporated in Ohio and

Whereas, the case has been prosecuted to a successful issue, therefore

Be It Resolved: That this body, in convention assembled does extend a vote of appreciation to the officers and trustees for so efficiently carrying out the mandate of the sovereign body in convention assembled in June, 1924, at Kansas City, which resulted in obtaining a decision by the court completely sustaining the contention that the American Optometric Association is a good, going corporation in accordance with the Articles of Incorporation obtained in 1918.

MINNESOTA STATE ASSOCIATION BULLETIN

By Dr. J. I. Kurtz, Secretary

The new Optometry bill, which was framed by the Legislative Committee of the Minnesota State Association, passed the House and Senate and was signed by the governor on the evening of April 17th.

It is the first time in the last ten years that our organization has been successful in having some new legislation adopted. The admendments to our law raise the standards of the profession and will be of benefit to all the optometrists of this state.

It was no easy task to put this bill through, but thanks to the untiring efforts and the keen political strategy of our legislative committee, of which Dr. A. H. Nordland is chairman, we are able to announce that the new optometry bill is no longer a dream. It is an actual fact—a law on the statute books of this state.

The officers of your association as well as the legislative committee wish to thank the members for the wholehearted support they have given both morally and financially. The following members **whose names appear below have contributed financially to the legislative fund** to date. Another list will be published next month containing the names of those members whose contribution came in after this publication has gone to press:

W. D. Amundson, Kerkhoven; H. W. Anderso, St. Paul; C. H. Anderson, Willmar; L. T. Arduser, Minneapolis; J. D. Armitage, Minneapolis; W. M. Arms, Owatonna; A. Asleson, Redwood Falls; H. Blickle, Rochester; A. R. Burquist, Duluth; J. M. Chalmers, Lake City; Jos. Christopherson, Virginia; J. E. Davis, Litchfield, Roy S. Dean, Duluth; C. L. Eckberg, Red Wing; G. R. Ellestad, Lanesboro; F. W. Eastabrooks, Coleraine; J. L. Egleston, Wadena; A. J. Fandel, St. Paul; J. L. Frank, New Prague; G. H. Goodwin, Marshall; A. G. Guy, St. Cloud; P. W. Hanson, Brooten; A. C. Hauer, Northfield; N. S. Harvey, Waseca; C. W. Hazelton, Excelsior; C. E. Hilden, Winona; O. Hoegh, Spring Grove; A. C. Hoffman, Minneapolis; Jacob Hub, Mankato; A. R. Huebeseth, St. Charles; H. J. Hulberg, Northfield; J. P. Iverson, Minneapolis; Geo. C. Jensen, St. Paul; Geo. B. Johnston, Pipestone; C. J. Jordan, Minneapolis; E. H. Kiekenapp, Faribault; C. C. Koch, Minneapolis; H. B. Kollofski, St. Paul; L. J. Korstad, Zumbrota; J. F. Kothman, Minneapolis; J. I. Kurtz, Minneapolis; J. L. Kubicek, Waseca; C. J. Larson, Bemidji; A. J. Large, Winona; E. W. Larson, Hibbing; J. E. Lee, Minneapolis, Walter Lyon, Albert Lea; Chas. G. Mack, Minneapolis; E. Markhus, Minneapolis; R. & L. Munns, Minneapolis; F. A. Mock, Waconia; L. Meyers, Minneapolis; The Best Co., Minneapolis; Benj. E. Nelson, Granite Falls; N. S. Nelsen, Hutchinson; A. H. Nordland, Minneapolis; A. O. Norstrom, Minneapolis; W. H. Nordin, Faribault; V. P. O'Brien, Duluth; J. E. Peterson, Minneapolis; R. E. Peterson, Minneapolis; Geo. H. Plackner, Benson; H. C. Prey, Mankato; F. J. Prat, St. Paul; W. H. Rice, St. Paul; H. Schlueder, New Ulm; Emil T. Schmidt, Buffalo; Peter Serger, Watkins; C. A. Sherdahl, Montevideo; Carl E. Sievert, Hopkins; Geo. E. Spofford, Long Prairie; F. H. Straub, Fergus Falls; H. W. Thurston, Minneapolis; Einar Thorson, Winnebago; S. J. Tillisch, Mankato; C. Van Drasek, Minneapolis; H. O. Watzke, Morris; J. P. Weber, St. Cloud; Simon Weiser, Minneapolis; B. F. Woodburn, Minneapolis; E. O. Worman, Minneapolis; Geo. W. Young, Minneapolis.

MINNESOTA EXAMINATIONS

The Minnesota Board of Optometry will hold their examination in the Senate Chamber of the Old State Capitol Bldg., St. Paul, Minnesota, on the 11th, 12th and 13th of May, 1925.

OKLAHOMA BOARD APPOINTMENT

Dr. E. B. Alexander, Secretary of the Oklahoma Association of Optometrists informs us of the appointment of Dr. J. R. McCrary, Oklahoma City, on the State Board of Examiners in Optometry. Dr. McCrary takes the place of Dr. R. C. Everts, whose term expired some time ago. He was recommended to the Governor for appointment by the Association on instructions of the last annual convention. Dr. Everts has served on the board for a number of years and has rendered faithful and efficient service. His place will be a difficult one to fill and we are indeed fortunate in having a man of Dr. McCrary's known qualities and ability to take his place.

The Standard Lens Of Today

STOCO OPHTHALMIC LENSES are the accepted standard of quality simply because we who make them have had always a keen appreciation of the importance of the work they must do. We believe the correction of vision requires—demands—the finest product man can make of glass, and we have made only lenses that reflect that belief.

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STOCK DEPOTS

IN NEW YORK	IN PHILADELPHIA	IN CINCINNATI	IN SAN FRANCISCO
76 Fifth Ave.	1211 Chestnut St.	128 E. Sixth St.	278 Post St.